

ACCELERATING NETWORK PERFORMANCE BY STRIPING  
AND PARALLELIZATION OF TCP CONNECTIONS

ABSTRACT OF THE DISCLOSURE

- 5        An architecture for optimizing network communications that utilizes a device positioned at two edges of a constrained Wide Area Network (WAN) link. The device intercepts outgoing network packets and reroutes them to a proxy application. The proxy application uses multiple, preferably persistent connections  
10      with a network accelerator device at the other end of the persistent connection. The proxy applications transmit the intercepted data. Packet mangling may involve spoofing the connection request at each end node; a proxy-to-proxy communication protocol specifies a way to forward an original address, port, and original transport protocol information end to end. The packet mangling and proxy-to-proxy  
15      communication protocol assure network layer transparency.